Corroding Metals

Grade Levels:
4-6

Questions:
What types of metal are susceptible to corrosion?
What kinds of liquid promote corrosion?

Possible Hypotheses:
Steel wool will/will not corrode when exposed to water/juice.
Stainless steel will/will not corrode when exposed to water/juice.
Aluminum will/will not corrode when exposed to water/juice.
Copper will/will not corrode when exposed to water/juice.

Materials:
Bowls
Water
Orange juice
Two pieces of steel wool
Two stainless steel teaspoons
Two pennies
Two squares of aluminum foil

Procedure:
1. Fill two bowls – one with water and the other with juice.
2. Put one piece of each of the metal objects in each bowl.
3. Leave the metals in the liquids for a week where they will not be disturbed.
4. After one week, take out the metal samples and examine them. Record your observations.

Analysis and Conclusion:
Which liquid caused more corrosion? Which metals were more susceptible to corrosion? Was there a combination of liquid and metal that caused the most corrosion? When can you use metals that corrode and when should you use metals that don't corrode?